

Revised 5/07 Sample Disposal by RC Labs may be billed at \$5.00 / sample for non-aqueous Samples:

**Project Code:**

## SHIPPING CONTAINER

Ice Chest ☒ None ☐

Box ☒ Other ☐ (Specify)

Custody Seals: Ice Chest ☐ Containers ☐ None ☒ Comments:

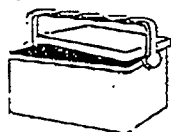
Containers ☐None ☒ Comments:

Interact? Yes ☒ No ☐

INTACT? Yes ☐ No ☒

All samples containers intact? Yes ☒ No ☐

Description(s) match CQC? Yes ☒ No ☐



Ice Chest ID: Real Date/Time: 7/30/99  
 Temperature: 2.8 °C  
 Thermometer ID: #48 Analyst Init: CFOR  
 Emissivity: 90  
 Container: Q1 PE

Ice Chest ID: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Temperature: \_\_\_\_\_ °C  
 Thermometer ID: \_\_\_\_\_ Analyst Init: \_\_\_\_\_  
 Emissivity: \_\_\_\_\_  
 Container: \_\_\_\_\_

### SAMPLE NUMBERS

Comments:

Sample Numbering Completed By:

Date/Time:

IF \WP80\LAB\_DOCS\FORMS\SAMREC2.WPD}

**WATER ANALYSIS  
(METALS)**

ARCADIS GERAGHTY & MILLER, INC.  
1400 N. HARBOR BLVD., SUITE 700  
FULLERTON, CA 92835-4127  
Attn: TERESA WILSON 714-278-0992

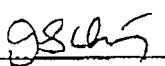
Date Reported: 08/11/99  
Date Received: 07/30/99  
Laboratory No.: 99-08950-1

Project Number: CA000280000700001  
Sampling Location: ILM  
Sample ID: BL-3  
Sampling Date/Time: 07/30/99 @ 11:45AM  
Sample Collected By: TIM TEEPLE

<u>Constituents</u>	<u>Results</u>	<u>Units</u>	<u>P.Q.L.</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Dilution Factor</u>
hexavalent Chromium	12.	µg/L	2.	EPA-7196	07/30/99	07/30/99	1

P.Q.L. = Practical Quantitation Limit (refers to the least amount of analyte quantifiable based on sample size used and analytical technique employed).

California D.O.H.S. Cert. #1186

  
\_\_\_\_\_  
Dan Schultz  
Laboratory Director



**BC Laboratories, Inc.**

Page

**WATER ANALYSIS  
(METALS)**

ARCADIS GERAGHTY & MILLER, INC.  
1400 N. HARBOR BLVD., SUITE 700  
FULLERTON, CA 92835-4127  
Attn: TERESA WILSON 714-278-0992

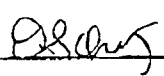
Date Reported: 08/11/99  
Date Received: 07/30/99  
Laboratory No.: 99-08950-2

Project Number: CA000280000700001  
Sampling Location: ILM  
Sample ID: FB073099  
Sampling Date/Time: 07/30/99 @ 11:40AM  
Sample Collected By: TIM TEEPLE

<u>Constituents</u>	<u>Results</u>	<u>Units</u>	<u>P.O.L.</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Dilution Factor</u>
hexavalent Chromium	None Detected	µg/L	2.	EPA-7196	07/30/99	07/30/99	1

P.Q.L. = Practical Quantitation Limit (refers to the least amount of analyte quantifiable based on sample size used and analytical technique employed).

California D.O.H.S. Cert. #1186

  
Dan Schultz  
Laboratory Director



**Laboratories, Inc**

B C LABORATORIES  
QUALITY CONTROL REPORT - LEVEL III  
(Preparation & Analysis Information)

ARCADIS GERAGHTY & MILLER, INC.  
1400 N. HARBOR BLVD., SUITE 700  
FULLERTON, CA 92835-4127  
TERESA WILSON

Date of Report: 08/09/99  
Sample Matrix: Groundwater

Samples Affected: 99-08950-1, 99-08950-2

Constituents	Preparation Method	Preparation Date	Preparation Technician	Analytical Method	Run Date	Analyst
Hexavalent Chromium	0.45uFilt	07/30/99	STH	EPA-7196	07/30/99	STH

Quality Control Officer

  
Anthony Bonanno



**Laboratories, Inc**

BC LABORATORIES  
QUALITY CONTROL REPORT LEVEL 101  
(Instrumental & Blank Parameters)

ARCADES GERAGHTY & MILLER, INC  
1400 N. HARBOR BLVD., SUITE 700  
FULLERTON, CA 92835-4127  
TERESA WILSON

Date of Report: 08/09/99  
Sample Matrix: Groundwater

Samples Affected: 99-08950-1, 99-08950-2

Constituents	ICV	CCV	CCV	% Found	CCB	CCB		Method	
	% Found	% Found	% Found	Control	Readings	Readings		Blank	
	Before	After	Limits	Before	After	Units	Readings	Units	
Hexavalent Chromium	100	99	97	90 - 110	< 2	< 2	µg/L	< 2	µg/L

ICV = Initial Calibration Verification;    CCV = Continuing Calibration Verification  
CCB = Continuing Calibration Blank

Quality Control Officer

  
Anthony Romano



**Laboratories, Inc**

BC LABORATORIES  
QUALITY CONTROL REPORT - LEVEL III  
(Precision & Accuracy)

ARCADIS CERAGITY & MILLER, INC.  
1400 N. HARBOR BLVD., SUITE 100  
FULLERTON, CA 92815-4127  
TERESA WILSON

Date of Report: 08/09/99  
Sample Matrix: Groundwater

Samples Affected: 99-08950-1, 99-08950-2

Constituents	QC Sample ID	Sample Result	Sample Duplicate	MS Result	MSD Result	MS Spike Level	MSD Spike Level	Units	Sample R.P.D.	Spike R.P.D.	Precision Control Limits	MS % Rec	MSD % Rec	Accuracy Control Limits
Hexavalent Chromium	8950-1	11.81	11.81	67.75	58.14	52.60	52.60	µg/L	0.	1.	10	106.	107.	85 - 115

MS = Matrix Spike; MSD = Matrix Spike Duplicate; RPD = Relative Percent Difference

Quality Control Officer

Anthony Bonanno



**Laboratories, Inc**

B C LABORATORIES  
QUALITY CONTROL REPORT - LEVEL III  
(Laboratory Control Sample)

ARCADIS GERAGHTY & MILLER, INC.  
1400 N. HARBOR BLVD., SUITE 700  
FULLERTON, CA 92835-4127  
TERESA WILSON

Date of Report: 08/09/99  
Sample Matrix: Groundwater

Samples Affected: 99-08950-1, 99-08950-2

Constituents	QC Sample ID	Sample Result	Spike Level	Units	% Rec	Accuracy Control Limits
Hexavalent Chromium	LCSW2-07-3	991.8	1000.	µg/L	99.	90 - 110

Quality Control Officer

  
Anthony P. Romano



Special Instructions- Additional Instructions Attached?

Y \_\_\_\_\_ N X \_\_\_\_\_

If any deviations are noted on this LTO from March 1999 sampling (with the exception of additional analyses), please call Teresa Wilson.  
Need courier to site by 1700 (5:00 p m ) every sampling day starting July 12. Contact Greg Fiel in field for meeting location.

AUTHORIZATIONS

AG&M Project Manager:

Teresa Wilson

Signature/Date:

*[Signature]*  
*[Signature]*

Laboratory QA Manager

Signature/Date:

*[Signature]* 7/12/99  
*[Signature]* 7/12/99

AG&M Project Officer:

Anthony G. Ward

Signature/Date:

*[Signature]*

Laboratory Project Manager

Signature/Date:

*[Signature]*

To:  
Mr. Ron Giraudi  
TRC Environmental Solutions, Inc.  
21 Technology Drive  
Irvine, California 92618

Copies:  
Project File

ARCADIS Geraghty & Miller, Inc.  
1400 Harbor Blvd., Suite 700  
Fullerton  
California 92835  
Tel 714 278 0992  
Fax 714 278 0051

From:  
Teresa Wilson

Date:  
27 September 1999

BUSINESS UNIT

Subject:  
Lockheed - Beaumont  
Data Validation Forms

ARCADIS Geraghty & Miller Project No.:  
CA000394.0001.00004

**We are sending you:**

- ☒ **Attached** ☐ Under Separate Cover Via US MAIL the Following Items:
- |  |                                  |   |                                       |
|--|----------------------------------|---|---------------------------------------|
| <input type="checkbox"/> Shop Drawings | <input type="checkbox"/> Plans   | <input type="checkbox"/> Specifications | <input type="checkbox"/> Change Order |
| <input type="checkbox"/> Prints        | <input type="checkbox"/> Samples | <input type="checkbox"/> Copy of Letter | <input type="checkbox"/> Reports      |
| <input type="checkbox"/> Other: _____  |                                  |   |                                       |

Copies	Date	Drawing No.	Rev.	Description	Action*
1	9/18/99			Data Validation Checklist (11 pages)	

**Action\***

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> A Approved           | <input type="checkbox"/> CR Correct and Resubmit | <input type="checkbox"/> Resubmit ___ Copies |
| <input type="checkbox"/> AN Approved As Noted | <input type="checkbox"/> F File                  | <input type="checkbox"/> Return ___ Copies   |
| <input type="checkbox"/> AS As Requested      | <input type="checkbox"/> FA For Approval         | <input type="checkbox"/> Review and Comment  |
| <input type="checkbox"/> Other: _____         |  |  |

**Comments:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## DATA VALIDATION CHECKLIST

Sample Identification	<u>99-8130</u>	<u>99-8204</u>	<u>99-8205</u>	<u>99-8271</u>
	BL-1	P-3	BL-7	P-16A
	BL-5	P-16C	BL-4	P-24A
	BL-8	EB071499	BL-2	P-7
	P-2	P-9B	Trip blank	P-22
	P-10	P-6B		P-17
		Trip blank		FB071599A
	<u>99-8272</u>	<u>99-8335</u>	<u>99-8336</u>	
	EB71599	P-20	BL-6	
	FB71599	EB071699	BL-15	
	BL-3	P-1	Trip blank	
	Trip blank	P-30		
		Trip blank		
Sample Date(s):	7/13/99 7/14/99, 7/15/99, and 7/16/99			
Sample Team:	ARCADIS Geraghty & Miller			
Sample Matrix:	Groundwater			
Analyzing Laboratory:	BC Laboratories, Inc.			
Analyses:	CAM 17 Metals (Total and dissolved) Ammonia/350.1			
	Hexavalent chromium(Cr <sup>6+</sup> ) Nitrate/nitrite/353.2			
	8015/Fuel ID (FFP) O-phosphate/365.1			
	8260/VOCs Dissolved organic			
	Inorganics/300.0 carbon(DOC)/415.1			
	Alkalinity/310.1			
QA Reporting Level:	ARCADIS Geraghty & Miller, Inc. Contract Level II			
Laboratory Report No	99-8130, 99-8204, 99-8205, 9-8271, 99-8272, 99-8335, 99-8336			

ARCADIS Geraghty & Miller, Inc.  
8222 S. 48<sup>th</sup> Street, Suite 140  
Phoenix Arizona 85044  
Tel 602 438 0883  
Fax 602 438 0102

Environmental

Project: Lockheed Martin/ILM

Project Number:CA000280.0007  
Task:0001

## FIELD DATA PACKAGE DOCUMENTATION

Field Sampling Logs: *	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sampling dates noted		X		X	
2. Sampling team indicated		X		X	
3. Sampling identification traceable to location collected		X		X	
4. Sample location		X		X	
5. Sample depth for soils	X				X
6. Collection technique (bailer, pump, etc.)		X		X	
7. Field sample preparation techniques		X		X	
8. Sample type (grab, composite)		X		X	
9. Sample container type		X		X	
10. Preservation methods		X		X	
11. Chain-of-custody form completed		X		X	
12. Required analytical methods requested		X		X	
13. Field (water and soil) sample logs completed properly and signed		X		X	
14. Number and type of field QC samples collected (blanks, replicates, splits, etc.)		X		X	
15. Field equipment calibration		X		X	
16. Field equipment decontamination		X		X	
17. Sample shipping		X		X	
18. Laboratory task order		X		X	

\*Field sampling logs = water and/or soil/sediment sampling logs  
QC - quality control

### Comments:

14. Sample BL-15 was collected as a duplicate of the primary field sample, BL-6. Sample P-30 is a duplicate of primary sample P-20. Comparison of duplicate results is completed for each analytical section below. Trip blanks, equipment blanks (EB071499, EB71599, and EB071699), and field blanks (FB071599, and FB71599) were collected and submitted with field samples.

# ANALYTICAL DATA PACKAGE DOCUMENTATION

## GENERAL INFORMATION

	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample results		X		X	
2. Parameters analyzed		X		X	
3. Method of analysis		X		X	
4. Reporting limits of analysis		X		X	
5. Master tracking list	X				X
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preparation/extraction date		X		X	
9. Sample analysis date		X		X	
10. Copy of chain-of-custody form signed by lab sample custodian		X		X	
11. Narrative summary of QA or sample problems provided		X		X	

QA - quality assurance

\*\* It should be noted that Initial and Continuing Calibration data for method 8260 were included with the analytical reports. Review of calibration data is beyond the scope of a Level II data validation and the calibration data were not reviewed.

11. The laboratory used blank samples for MS/MSD analyses for several analytical parameters. This issue was addressed during the previous ILM sampling event, however was not corrected for samples associated with this report. The laboratory was contacted and a corrective action was implemented, and a corrective action report was issued. The ILM Quality Assurance Project Plan (QAPP) does not specify which samples can be used for MS/MSD analysis, and no further action was taken.

# QUALITY IMPROVEMENT FORM (QIF)

**NON-CONFORMANCE TYPE (CIRCLE)**

**QIF #** \_\_\_\_\_  
**(Test Code- Date -Extension)**

Type I Policy	Type X	Computer Software
Type II Procedure	Type XI	Programming
Type III Equipment/Reagent	Type XII	Other, Specify
Type IV Project Specific		
Type V Communication		
Type VI Procurement		
Type VII Environment		
Type VIII Safety		
Type IX Computer Hardware		

Client Code: GRGHD  
 Project Code: ILM  
 Initiated By: CJA  
 Date: 09 / 20 / 99

Responsible Party  
 for Restoring System: \_\_\_\_\_

- Person initiating QIF must complete bold face sections.

**NON-CONFORMANCE:**

Equipment Blanks (EB's) specifically 99-08204-3 and 99-08271-6, were used for QC for the Dissolved ICP Metals. This affected submissions 99-08204, 99-08205, and 99-08271. The paperwork (worksheets) indicated that EB's were not to be used for QC purposes.

**CAUSE:**

Samples were prepared before receiving the worksheets that indicated that EB's were not to be used for QC. In order to expedite turnaround times, Many analyses are completed off work lists that are generated during the sample login process. These lists indicate by test a list of laboratory numbers to be completed. Samples that require QC are marked with an '\*'. Currently, all Arcadis Geraghty & Miller samples are marked with and '\*'.

**CORRECTIVE ACTION:**

During the sample logging stage, samples that are not appropriate to be used for QC, i.e. Equipment, Field, and Travel Blanks will be logged in for QC type 1. This will eliminate the '\*' from the worklist and indicate to the analyst not to select that sample for QC.

**VERIFICATION OF CORRECTIVE PROCEDURE:**

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**DATE SYSTEM RETURNED INTO A CONTROLLED STATUS:** \_\_\_\_ / \_\_\_\_ / \_\_\_\_

**INITIALS OF PERSON CLOSING CORRECTIVE ACTION:** \_\_\_\_\_

**COMMENTS:**

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**SUPERVISOR APPROVAL** \_\_\_\_\_

Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

**QA OFFICER APPROVAL** \_\_\_\_\_

Date: 10 / 13 / 99

# INORGANIC ANALYSES WET CHEMISTRY METHODS

	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Holding times		X		X	
2. Reporting limits		X		X	
3. Blanks					
A. Preparation and calibration blanks		X		X	
B. Equipment rinsate blanks		X		X	
C. Field blanks		X		X	
4. Laboratory control sample (LCS) %R		X		X	
5. LCS duplicate (LCSD) and %RPD		X		X	
6. Matrix spike (MS) %R		X		X	
7. MS duplicate (MSD) %R		X		X	
8. Laboratory duplicate RPD	X				X
9. Field duplicate comparison		X	X		
%R- percent recovery      RPD - relative percent difference      NA - not applicable or not analyzed					

## Comments:

Samples were analyzed for methods 300.0/(sulfate, chloride), 310.1/alkalinity, 350.1/ammonia, 353.2/nitrate, nitrite, 365.1/ortho-phosphate, and 415.1/DOC. Performance was acceptable, with the following exceptions and notes.

- The following samples required the corresponding dilution due to matrix interference. All reporting limits were adjusted accordingly.

Sample	o-phosphate	nitrate/nitrite	sulfate	chloride	DOC
P-3	-	10X	2X	2X	-
P-16C	-	20X	5X	5X	-
P-9B	-	10X	2X	2X	-
P-6B	-	5X	2X	2X	-
P-16A	10X	5X	2X	2X	-
P-24A	5X	-	2X	2X	-
P-7	2X	2X	2X	2X	-
P-22	5X	-	5X	5X	-
P-17	-	2X	2X	2X	-
P-20	-	10X	5X	5X	4X
P-1	-	10X	-	-	-
P-30	-	10X	2X	2X	-
BL-1	-	10X	2X	2X	4X
BL-5	-	-	2X	2X	-
BL-8	-	2X	2X	2X	-
P-2	-	5X	5X	5X	-
P-10	-	5X	2X	2X	-
BL-7	-	2X	-	-	4X
BL-2	-	2X	-	-	-
BL-3	-	5X	5X	5X	-
BL-6	-	10X	2X	2X	-
BL-15	-	10X	-	-	-

- The matrix spike percent recovery for ammonia analysis, using sample P-20 (116%), was outside the acceptable control limits (90-110%). Using professional judgment, no qualification was necessary. Additional MS/MSD analyses were completed using samples P-3, P-2, BL-1, BL-7, BL-3 and BL-6, and results were acceptable. Blank samples FB071499, EB071599 and FB071599 were also used as MS/MSD samples, and corrective actions were taken.

## WET CHEMISTRY METHODS Cont.

8. Field duplicate evaluation is applied using 20 percent RPD for water samples for detected results greater than 5X the detection limit. The following results for primary sample P-20 and field duplicate P-30 were qualified as "J/Estimated, detected." Additional field duplicate comparison percent RPDs for sample duplicate pairs BL-6, BL-15, and P-20, P-30 were acceptable.

Analyte	P-20	P-30	percent RPD	Action
DOC	8.1	4.4	59%	Samples P-20 and P-30 DOC results qualified J

## ORGANIC ANALYSES

	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY (GC) OR HIGH PERFORMANCE LIQUID CHROMATOGRAPHY (HPLC)					
1. Holding times					
A. Extraction holding time		X		X	
B. Analysis holding time		X		X	
2. Reporting limits		X		X	
3. Blanks					
A. Instrument blank	X				X
B. Extraction blanks		X		X	
C. Equipment rinsate blanks		X		X	
D. Field Blanks		X		X	
E. Trip blanks	X				X
4. Matrix spike (MS) %R		X		X	
5. Matrix spike duplicate (MSD) %R		X		X	
6. MS/MSD precision (RPD)		X		X	
7. Laboratory duplicate (optional)	X				X
8. Reagent water spike (BS)		X		X	
9. Reagent water spike duplicate (BSD)		X		X	
10. BS/BSD precision (RPD)		X		X	
11. Surrogate spike recoveries		X		X	
12. Field duplicate comparison		X		X	
VOCs - volatile organic compounds      %R - percent recovery      RPD - relative percent difference					

### Comments:

Samples were analyzed by Method 8015/TPH, fuel fingerprint (FFP). Performance was acceptable, with the following exceptions and notes.

12. Field duplicate evaluation is applied using 20 percent RPD for water samples with detected results greater than 5X the detection limit. Field duplicate comparison percent RPDs for sample duplicate pairs BL-6, BL-15, and P-20, P-30 were acceptable.



# INORGANIC ANALYSES

## TOTAL AND DISSOLVED METALS METHODS

	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Holding times		X		X	
2. Reporting limits		X		X	
3. Blanks					
A. Preparation and calibration blanks		X		X	
B. Equipment rinsate blanks		X	X		
C. Field blanks		X	X		
4. Laboratory control sample (LCS) %R		X		X	
5. Matrix spike (MS) %R		X	X		
6. MS duplicate %R and MS/MSD RPD		X	X		
7. Laboratory duplicate RPD	X				
8. Field duplicate comparison		X	X		X
9. Total and dissolved metals comparison		X		X	
%R - percent recovery      RPD - relative percent difference      MSD - matrix spike duplicate					

### Comments:

Samples were analyzed for metals by methods 6010, SM-3114, 7421, 7470, 7196 and 7841. Metals analyzed include arsenic, antimony, barium, beryllium, cadmium, chromium, hexavalent chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc. Samples were analyzed for both total and dissolved metals. Performance was acceptable, with the following exceptions and notes.

- The following samples required the corresponding dilution due to matrix interference. All reporting limits were adjusted accordingly.

Sample	Analyte(s), Dilution factor					
	aluminum (diss.)	arsenic (total)	silver (total)	lead (total)	thallium (total)	chromium+6
P-16C	2X	-	-	-	-	-
P-20	2X	-	-	-	-	-
P-30	2X	-	-	-	-	-
BL-1	-	5X	5X	5X	-	-
BL-5	-	-	-	4X	-	-
BL-8	-	5X	2X	-	-	-
P-2	-	-	-	4X	-	-
P-10	-	-	-	4X	-	-
BL-7	-	5X	5X	5X	5X	-
BL-2	-	5X	5X	5X	4X	-
BL-6	-	10X	5X	10X	-	10X
BL-15	-	10X	5X	10X	-	10X

- The following analytes were detected in the corresponding blank samples. In accordance with the National Functional Guidelines, when sample results are greater than the detection limit, but less than 5X the highest amount found in any blank, the results for that analyte are qualified as "U/Not detected." No action is taken for samples reported less than the detection limit.

Sample	Report	Analyte(s)	Action, qualified samples
EB071499	99-8204	copper (total)	Sample P-6B qualified U
FB071599	99-8271	copper (total)	Samples P-16A, P-24A and P-7 qualified U
EB071599	99-8272	mercury (total)	Sample BL-3 qualified U
EB071699	99-8335	selenium (total and dissolved)	No qualification necessary

## TOTAL AND DISSOLVED METALS Cont.

- 4-6. The following samples were used for MS/MSD analyses. As previously noted, several blank samples were used for MS/MSD analysis, please refer to the corrective action report for details. Results were acceptable unless otherwise noted, and MS/MSD results outside the acceptable control limits were qualified in accordance with the USEPA National Functional Guidelines as "J/Estimated, detected." In cases where the spiked sample result for the failed analyte is greater than 4X the spike concentration, no qualification is necessary.

<u>MS/MSD sample</u>	<u>Report</u>	<u>Analyte out</u>	<u>Action, qualified samples</u>
BL-1	99-8130	-	results acceptable
P-10	99-8130	aluminum (total)	samples BL-1, BL-5, BL-8, P-2, P-10, qualified J
P-3	99-8204	aluminum (total)	QC sample result >4X spike conc., no qualification
EB071499	99-8204	-	results acceptable, refer to corrective action report
Batch	99-8205	aluminum (total)	samples BL-7, BL-4, BL-2, qualified J
BL-7	99-8205	-	results acceptable
Batch	99-8271	titanium (total)	sample P-22, qualified J
FB071599	99-8271	-	results acceptable, refer to corrective action report
Batch	99-8272	aluminum (total)	QC sample result >4X spike conc., no qualification
P-20	99-8335	-	results acceptable
Batch	99-8336	-	results acceptable

8. Field duplicate evaluation is applied using 20 percent RPD for water samples for detected results greater than 5X the detection limit. Results for the following compounds, for primary sample BL-6 and field duplicate BL-15 were qualified as "R/Unusable, rejected." Additional field duplicate comparison percent RPDs for sample duplicate pairs BL-6, BL-15, and P-20, P-30 were acceptable.

<u>Analyte</u>	<u>BL-6</u>	<u>BL-15</u>	<u>percent RPD</u>	<u>Action</u>
arsenic (dissolved)	60	10	140%	Samples BL-6 and BL-15 Al results qualified R
arsenic (total)	275	338	21%	using professional judgment, no action taken

9. A comparison of Total versus Dissolved metals was completed for all samples analyzed for all metals constituents (with the exception of  $\text{Cr}^{6+}$ ). Results were acceptable.